Volume 53, 2004

Plant Pathology

An international journal edited by the
British Society for Plant Pathology

Senior Editor
R. Shattock

Volume Contents

Blackwell
Publishing

ISSN 0032-0862

Published by Blackwell Publishing Ltd
Typeset by Graphicraft Limited, Hong Kong
Printed by the Alden Group, Oxford, UK.

©2004 British Society for Plant Pathology. All rights reserved. With the exception of fair dealing for the purposes of research or private study, or criticism or review, no part of this publication may be reproduced, stored or transmitted in any form or by any means without the prior permission in writing from the copyright holder. Authorization to photocopy items for internal and personal use is granted by the copyright holder for libraries and other users of the Copyright Clearance Centre (CCC), 22 Rosewood Drive, Danvers, MA 01923, USA (www.copyright.com), provided the appropriate fee is paid directly to the CCC. This consent does not extend to other kinds of copying, such as copying for general distribution for advertising or promotional purposes, for creating new collective works, or for resale.

Editorial Offices:
Blackwell Publishing Ltd, 9600 Garsington Road, Oxford OX4 2DQ, UK
Blackwell Publishing Asia, 550 Swanston Street, Carlton South, Victoria 3053, Australia
Blackwell Verlag, Kurfürstendamm 58, D-10707 Berlin, Germany
Blackwell Publishing Japan/Blackwell Publishing Asia, Tokyo Office, 5F, GS Chiyoda Building, 3-11-14 Iidabashi, Chiyoda-ku, Tokyo 102-0072, Japan
Blackwell Publishing Inc., Commerce Place, 350 Main Street, Malden MA 02148-5018, USA
Blackwell Munksgaard, 1 Rosenørns Allé, PO Box 227, DK-1502 Copenhagen V, Denmark
Blackwell Publishing Professional, 2121 S State Avenue, Ames, IA 50014-8300, USA

ISSN 0032-0862

Contents

NUMBER 1 **FEBRUARY**

Original Articles

1 *S. R. Parker, S. Welham, N. D. Paveley, J. Foulkes & R. K. Scott.* Tolerance of septoria leaf blotch in winter wheat

11 *D. J. Lovell, S. R. Parker, T. Hunter, S. J. Welham & A. R. Nichols.* Position of inoculum in the canopy affects the risk of septoria tritici blotch epidemics in winter wheat

22 *L. Covarelli, A. S. Turner & P. Nicholson.* Repression of deoxynivalenol accumulation and expression of *Tri* genes in *Fusarium culmorum* by fungicides *in vitro*

29 *Z. Karolewski, N. Evans, B. D. L. Fitt, A. Baierl, A. D. Todd & S. J. Foster.* Comparative epidemiology of *Pyrenopeziza brassicae* (light leaf spot) ascospores and conidia from Polish and UK populations

38 *X.-M. Xu & L. V. Madden.* Use of SADIE statistics to study spatial dynamics of plant disease epidemics

50 *M. E. Stanghellini, M. M. Waugh, K. C. Radewald, D. H. Kim, D. M. Ferrin & T. Turini.* Crop residue destruction strategies that enhance rather than inhibit reproduction of *Monosporascus cannonballus*

54 *M. E. Stanghellini, D. H. Kim, M. M. Waugh, D. M. Ferrin, T. Alcantara & S. L. Rasmussen.* Infection and colonization of melon roots by *Monosporascus cannonballus* in two cropping seasons in Arizona and California

58 *V. Flors, M. C. Miralles, E. Varas, P. Company, C. González-Bosch & P. García-Agustín.* Effect of analogues of plant growth regulators on *in vitro* growth of eukaryotic plant pathogens

65 *E. A. Achuo, K. Audenaert, H. Meziane & M. Höfte.* The salicylic acid-dependent defence pathway is effective against different pathogens in tomato and tobacco

73 *B. J. Peters, G. J. Ash, E. J. Cother, D. L. Hailstones, D. H. Noble & N. A. R. Urwin. Pseudomonas syringae* pv. *maculicola* in Australia: pathogenic, phenotypic and genetic diversity

80 *J. Bogs, K. Richter, W.-S. Kim, S. Jock & K. Geider.* Alternative methods to describe virulence of *Erwinia amylovora* and host-plant resistance against fireblight

90 *L. Carraro, F. Ferrini, P. Ermacora, N. Loi, M. Martini & R. Osler. Macropsis mendax* as a vector of elm yellows phytoplasma of *Ulmus* species

96 *T.-H. Hung, S.-C. Hung, C.-N. Chen, M.-H. Hsu & H.-J. Su.* Detection by PCR of *Candidatus* Liberibacter asiaticus, the bacterium causing citrus huanglongbing in vector psyllids: application to the study of vector–pathogen relationships

103 *M. Pujol, D. De Clercq, S. Cognet, P. Lepoivre & M. H. Jijakli.* Monitoring system for the biocontrol agent *Pichia anomala* strain K using quantitative competitive PCR-ELOSA

110 *K. Boutsika, M. S. Phillips, S. A. MacFarlane, D. J. F. Brown, R. C. Holeva & V. C. Blok.* Molecular diagnostics of some trichodorid nematodes and associated *Tobacco rattle virus*

117 *L. Rassaby, J.-C. Girard, O. Lemaire, L. Costet, M. S. Irey, H. Kodja, B. E. L. Lockhart & P. Rott.* Spread of *Sugarcane yellow leaf virus* in sugarcane plants and fields on the island of Réunion

126 Book reviews

NUMBER 2 **APRIL**

Original Articles

129 *E. J. Cother, D. Noble, B. J. Peters, A. Albiston & G. J. Ash.* A new bacterial disease of jojoba (*Simmondsia chinensis*) caused by *Burkholderia andropogonis*

136 *T. Nagata, A. C. L. Almeida, R. O. Resende & A. C. de Ávila.* The competence of four thrips species to transmit and replicate four tospoviruses

141 *B. O. Odu, J. d'A. Hughes, R. Asiedu, N. Q. Ng, S. A. Shoyinka & O. A. Oladiran.* Responses of white yam (*Dioscorea rotundata*) cultivars to inoculation with three viruses

148 *S. Sarra, P. Oevering, S. Guindo & D. Peters.* Wind-mediated spread of *Rice yellow mottle virus* (RYMV) in irrigated rice crops

154 *K. Kanyuka, D. J. Lovell, O. P. Mitrofanova, K. Hammond-Kosack & M. J. Adams.* A controlled environment test for resistance to *Soil-borne cereal mosaic virus* (SBCMV) and its use to determine the mode of inheritance of resistance in wheat cv. Cadenza and for screening *Triticum monococcum* genotypes for sources of SBCMV resistance

161 *G. R. D. McGrann & M. J. Adams.* Investigating resistance to *Barley mild mosaic virus*

170 *D. J. Lovell, T. Hunter, S. J. Powers, S. R. Parker & F. Van den Bosch.* Effect of temperature on latent period of septoria leaf blotch on winter wheat under outdoor conditions

182 *P. Jennings, M. E. Coates, J. A. Turner, E. A. Chandler & P. Nicholson.* Determination of deoxynivalenol and nivalenol chemotypes of *Fusarium culmorum* isolates from England and Wales by PCR assay

191 *J. H. Zhou, J. L. Wang, J. C. Xu, C. L. Lei & Z. Z. Ling.* Identification and mapping of a rice blast resistance gene *Pi-g(t)* in the cultivar Guangchangzhan

197 *T. Jung & M. Blaschke.* Phytophthora root and collar rot of alders in Bavaria: distribution, modes of spread and possible management strategies

209 *A. A. Appiah, J. Flood, S. A. Archer & P. D. Bridge.* Molecular analysis of the major *Phytophthora* species on cocoa

220 *A. Pérez-Sierra, J.-J. Guillaumin, B. M. Spooner & P. D. Bridge.* Characterization of *Armillaria heimii* from Africa

New Disease Reports

231 *S. Bigirimana, P. Barumbanze, R. Obonyo & J. P. Legg.* First evidence for the spread of *East African cassava mosaic virus* – Uganda (EACMV-UG) and the pandemic of severe cassava mosaic disease to Burundi

232 *J. P. Legg, F. Ndjelassili & G. Okao-Okuja.* First report of cassava mosaic disease and cassava mosaic geminiviruses in Gabon
233 *R. W. Briddon, I. Robertson, P. G. Markham & J. Stanley.* Occurrence of *South African cassava mosaic virus* (SACMV) in Zimbabwe
234 *A. L. Echemendía, P. L. Ramos, L. Díaz, R. Peral, A. Fuentes, M. Pujol & G. González.* First report of *Sida golden yellow vein virus* infecting *Sida* species in Cuba
235 *K. S. Usharani, B. Surendranath, S. M. Paul-Khurana, I. D. Garg & V. G. Malathi.* Potato leaf curl – a new disease of potato in northern India caused by a strain of *Tomato leaf curl New Delhi virus*
236 *M. Katoch, M. Z. Abdin & A. A. Zaidi.* First report of *Tobacco rattle virus* occurring in gladiolus in India
237 *R. Pourrahim, F. Rakhshandehro, Sh. Farzadfar & A. R. Golnaraghi.* Natural occurrence of *Tomato ringspot virus* on grapevines in Iran
238 *C. I. Dovas, K. Eythymiou & N. I. Katis.* First report of *Maize rough dwarf virus* (MRDV) on maize crops in Greece
239 *M. H. Ellis, G. J. Rebetzke, W. M. Kelman, C. S. Moore & J. E. Hyles.* Detection of *Wheat streak mosaic virus* in four pasture grass species in Australia
240 *W.-C. Hu & Y.-C. Chang.* A new mosaic disease of Amazon lily in Taiwan
241 *D. Louro, A. Quinot, E. Neto, J. E. Fernandes, D. Marian, M. Vecchiati, P. Caciagli & A. M. Vaira.* Occurrence of *Cucumber vein yellowing virus* in cucurbitaceous species in southern Portugal
242 *R. A. Mumford, B. Jarvis & A. Skelton.* The first report of *Potato spindle tuber viroid* (PSTVd) in commercial tomatoes in the UK
243 *O. Szentiványi, K. Varga & L. Kiss.* Powdery mildew on snowberry in Hungary caused by *Erysiphe symphoricarpi* (syn. *Microsphaera symphoricarpi*)
244 *L. Vajna, G. Fischl & L. Kiss. Erysiphe elevata* (syn. *Microsphaera elevata*), a new North American powdery mildew fungus in Europe infecting *Catalpa bignonioides* trees
245 *L. Kiss, L. Vajna & G. Fischl.* Occurrence of *Erysiphe flexuosa* (syn. *Uncinula flexuosa*) on horse chestnut (*Aesculus hippocastanum*) in Hungary
246 *M. Piątek.* First report of powdery mildew (*Oidium carpini*) on *Carpinus betulus* in Poland
247 *S. M. Wolcan & L. Ronco.* Occurrence of *Erysiphe buhrii* on *Gypsophila paniculata* in Argentina
248 *S. Seta, M. Gonzalez & G. Lori.* First report of walnut canker caused by *Fusarium incarnatum* in Argentina
249 *I. Szabó & T. C. Harrington.* First report of *Thielaviopsis populi* on hybrid poplar in Hungary
250 *D. Veroz, F. M. Alves-Santos & J. Diez.* Occurrence of *Pestalotia stevensonii* on *Pinus pinea* in Spain
251 *K. Vrandecic, J. Cosic, L. Riccioni, T. Duvnjak & D. Jurkovic. Phomopsis longicolla* – new pathogen on *Abutilon theophrasti* in Croatia
252 *M. L. Putnam.* First report of stem rot of rosemary caused by *Sclerotinia sclerotiorum* in the United States
253 *G. F. Theodoro, N. A. R. Peres & L. A. F. Verona.* Outbreak of postbloom fruit drop of citrus, caused by *Colletotrichum acutatum*, in Santa Catarina State, southern Brazil
254 *I. Glais & D. Andrivon.* Deep sunken lesions – an atypical symptom on potato tubers caused by *Colletotrichum coccodes* during storage
255 *T. K. Bag.* Two new orchid hosts of *Sclerotium rolfsii* from India
256 *O. L. Pereira & R. W. Barreto.* First report of *Sphenospora kevorkianii* (Raveneliaceae) on the orchid *Catasetum fimbriatum* in Brazil
257 *S. Soylu, E. M. Soylu & S. Kurt.* First report of leaf rust on plum (*Prunus cerasifera*) by *Tranzschelia pruni-spinosa* var. *discolor* in the eastern Mediterranean region of Turkey
258 *H. Kavak.* First record of leaf rust caused by *Puccinia hordei* on *Hordeum vulgare* ssp. *spontaneum* in Turkey
259 *A. L. do Amaral, M. L. de Carli, J. F. Barbosa Neto & F. K. Dal Soglio. Phoma sorghina*, a new pathogen associated with phaeosphaeria leaf spot on maize in Brazil
260 *G. H. Yang, X. Q. Chen, H. R. Chen, S. Naito, A. Ogoshi & J. F. Zhao.* First report of foliar blight in *Brassica rapa* ssp. *chinensis* caused by *Rhizoctonia solani* AG-4
261 *M. L. Jeeva, V. Hegde, T. Makeshkumar, S. Sriram, R. R. Nair, S. Edison & N. Mathur.* Rust of Queensland arrowroot (*Canna edulis*) caused by *Puccinia thaliae*: a new record for India
262 *T. M. O'Neill, A. Shepherd, A. J. Inman & C. R. Lane.* Wilt of stock (*Matthiola incana*) caused by *Fusarium oxysporum* in the United Kingdom

NUMBER 3 JUNE

Review

263 *J. S. Williams & R. M. Cooper.* The oldest fungicide and newest phytoalexin – a reappraisal of the fungitoxicity of elemental sulphur

Original Articles

280 *M. J. Lehtonen, H. Rantala, J. F. Kreuze, H. Bång, L. Kuisma, P. Koski, E. Virtanen, K. Vihlman & J. P. T. Valkonen.* Occurrence and survival of potato scab pathogens (*Streptomyces* species) on tuber lesions: quick diagnosis based on a PCR-based assay
288 *L. Tsror (Lahkim).* Effect of light duration on severity of black dot caused by *Colletotrichum coccodes* on potato
294 *D. Rotenberg, A. E. MacGuidwin, I. A. M. Saeed & D. I. Rouse.* Interaction of spatially separated *Pratylenchus penetrans* and *Verticillium dahliae* on potato measured by impaired photosynthesis
303 *J. P. Day, R. A. M. Wattier, D. S. Shaw & R. C. Shattock.* Phenotypic and genotypic diversity in *Phytophthora infestans* on potato in Great Britain, 1995–98
316 *A. Lebeda & I. Petrželová.* Variation and distribution of virulence phenotypes of *Bremia lactucae* in natural populations of *Lactuca serriola*
325 *K. Sotirovski, I. Papazova-Anakieva, N. J. Grünwald & M. G. Milgroom.* Low diversity of vegetative compatibility types and mating type of *Cryphonectria parasitica* in the southern Balkans

334 *R. V. Ribeiro, E. C. Machado & R. F. Oliveira.* Growth- and leaf-temperature effects on photosynthesis of sweet orange seedlings infected with *Xylella fastidiosa*
341 *B. B. Landa, J. A. Navas-Cortés & R. M. Jiménez-Díaz.* Influence of temperature on plant–rhizobacteria interactions related to biocontrol potential for suppression of fusarium wilt of chickpea
353 *J. P. Clarkson, A. Mead, T. Payne & J. M. Whipps.* Effect of environmental factors and *Sclerotium cepivorum* isolate on sclerotial degradation and biological control of white rot by *Trichoderma*
363 *J. E. Cardoso, A. A. Santos, A. G. Rossetti & J. C. Vidal.* Relationship between incidence and severity of cashew gummosis in semiarid north-eastern Brazil
368 *L. D. C. Mota, M. G. S. Della Vecchia, R. Gioria, E. W. Kitajima, J. A. M. Rezende, L. E. A. Camargo & L. Amorim. Pfaffia mosaic virus*: a new potyvirus found infecting *Pfaffia glomerata* in Brazil
374 Book review

NUMBER 4 AUGUST

Original Articles

375 *S. Chakraborty, R. Ghosh, M. Ghosh, C. D. Fernandes, M. J. Charchar & S. Kelemu.* Weather-based prediction of anthracnose severity using artificial neural network models
387 *C. S. Young, J. P. Clarkson, J. A. Smith, M. Watling, K. Phelps & J. M. Whipps.* Environmental conditions influencing *Sclerotinia sclerotiorum* infection and disease development in lettuce
398 *I. Glais-Varlet, K. Bouchek-Mechiche & D. Andrivon.* Growth *in vitro* and infectivity of *Colletotrichum coccodes* on potato tubers at different temperatures
405 *N. D. Suassuna, L. A. Maffia & E. S. G. Mizubuti.* Aggressiveness and host specificity of Brazilian isolates of *Phytophthora infestans*
414 *J. Roux, M. van Wyk, H. Hatting & M. J. Wingfield. Ceratocystis* species infecting stem wounds on *Eucalyptus grandis* in South Africa
422 *C. H. Bock, B. Mackey & P. J. Cotty.* Population dynamics of *Aspergillus flavus* in the air of an intensively cultivated region of south-west Arizona
434 *A. Calonnec, P. Cartolaro, C. Poupot, D. Dubourdieu & P. Darriet.* Effects of *Uncinula necator* on the yield and quality of grapes (*Vitis vinifera*) and wine
446 *C. J. R. Cumagun, F. Rabenstein & T. Miedaner.* Genetic variation and covariation for aggressiveness, deoxynivalenol production and fungal colonization among progeny of *Gibberella zeae* in wheat
454 *L. Chartrain, P. A. Brading, J. C. Makepeace & J. K. M. Brown.* Sources of resistance to septoria tritici blotch and implications for wheat breeding
461 *M. R. Afunian, P. H. Goodwin & D. M. Hunter.* Linkage of *Vfa4* in *Malus* × *domestica* and *Malus floribunda* with *Vf* resistance to the apple scab pathogen *Venturia inaequalis*
468 *S. J. Marcroft, S. J. Sprague, P. A. Salisbury & B. J. Howlett.* Potential for using host resistance to reduce production of pseudothecia and ascospores of *Leptosphaeria maculans*, the blackleg pathogen of *Brassica napus*
475 *A. J. Tomley & H. C. Evans.* Establishment of, and preliminary impact studies on, the rust, *Maravalia cryptostegiae*, of the invasive alien weed, *Cryptostegia grandiflora* in Queensland, Australia
485 *L. I. Ward, M. G. E. Fenn & C. M. Henry.* A rapid method for direct detection of *Polymyxa* DNA in soil
491 *M. Scortichini, M. P. Rossi & M. Salerno.* Relationship of genetic structure of *Pseudomonas savastanoi* pv. *savastanoi* populations from Italian olive trees and patterns of host genetic diversity
498 *S. J. Pethybridge, L. V. Madden, J. Griggs & C. R. Wilson.* Species composition and abundance of aphids in Australian hop gardens and their impact on spatiotemporal patterns of *Carlavirus* epidemics
508 *M. Di Vito, N. Vovlas & P. Castillo.* Host–parasite relationships of *Meloidogyne incognita* on spinach

New Disease Reports

515 *M. Ciuffo & M. Turina.* A potexvirus related to *Papaya mosaic virus* isolated from moss rose (*Portulaca grandiflora*) in Italy
516 *W. X. Liang, L. M. Song, Y. Li, G. Z. Tian, H. F. Li & Z. F. Fan.* First report of *Wisteria vein mosaic virus* in China
517 *E. Segundo, G. Martín, I. M. Cuadrado & D. Janssen.* A new yellowing disease in *Phaseolus vulgaris* associated with a whitefly-transmitted virus
518 *M. Hussain, J. Qazi, S. Mansoor, S. Iram, M. Bashir & Y. Zafar.* First report of *Mungbean yellow mosaic India virus* on mungbean in Pakistan
519 *P. Jones, B. J. Devonshire, T. J. Holman & S. Ajanga.* Napier grass stunt: a new disease associated with a 16SrXI group phytoplasma in Kenya
520 *J. J. Filgueira, L. Franco-Lara, J. E. Salcedo, S. L. Gaitan & E. R. Boa.* Urapan (*Fraxinus udhei*) dieback, a new disease associated with a phytoplasma in Colombia
521 *S. M'hirsi, H. Acheche, S. Fattouch, G. Boccardo, M. Marrakchi & N. Marzouki.* First report of phytoplasmas in the aster yellows group infecting grapevine in Tunisia
522 *C. R. Lane, P. A. Beales, K. J. D. Hughes, J. A. Tomlinson, A. J. Inman & K. Warwick.* First report of ramorum dieback (*Phytophthora ramorum*) on container-grown English yew (*Taxus baccata*) in England
523 *M. Žerjav, A. Munda, C. R. Lane, A. V. Barnes & K. J. D. Hughes.* First report of *Phytophthora ramorum* on container-grown plants of rhododendron and viburnum in Slovenia
524 *P. A. Beales, T. Brokenshire, A. V. Barnes, V. C. Barton & K. J. D. Hughes.* First report of ramorum leaf blight and dieback (*Phytophthora ramorum*) on *Camellia* spp. in the UK
525 *P. A. Beales, A. Schlenzig & A. J. Inman.* First report of ramorum bud and leaf blight (*Phytophthora ramorum*) on *Syringa vulgaris* in the UK
526 *P. M. Giltrap, A. J. Inman, V. C. Barton, A. V. Barnes, C. R. Lane, K. J. D. Hughes, J. Tomlinson, M. L. Dean & K. Izzard.* First report of ramorum dieback (*Phytophthora ramorum*) on *Hamamelis virginiana* in the UK
527 *S. Kurt, S. Soylu, E. M. Soylu & F. M. Tok.* First report of powdery mildew caused by *Leveillula taurica* on leek (*Allium porrum*) in Turkey

528 *E. M. Soylu, S. Soylu & S. Kurt*. First report of powdery mildew caused by *Podosphaera phaseoli* (syn. *Sphaerotheca phaseoli*) on cowpea (*Vigna sinensis*) in Turkey
529 *H. Kavak*. First report of rust disease caused by *Puccinia linkii* on *Viburnum edule* in Turkey
530 *H. B. Gjærum, K. A. Lye & H. Solheim*. First record of *Melampsoridium hiratsukanum* on alder in Norway
531 *P. Tsopelas & A. Angelopoulos*. First report of canker stain disease of plane trees, caused by *Ceratocystis fimbriata* f. sp. *platani* in Greece
532 *M. R. Carranza, G. A. Lori & S. Larran*. Canker on umbra tree caused by *Fusarium sambucinum*
533 *J. Sudisha, T. Vasanth Kumar, S. R. Niranjana & H. Shekar Shetty*. First report of gummy stem blight caused by *Didymella bryoniae* on muskmelon (*Cucumis melo*) in India
534 *G. Conca & A. Infantino*. First report of *Verticillium dahliae* on *Hebe* × *franciscana* in Italy
535 *M. F. Sousa, R. M. Tavares, H. Gerós & T. Lino-Neto*. First report of *Hakea sericea* leaf infection caused by *Pestalotiopsis funerea* in Portugal
536 *P. A. Beales, J. Scrace, R. T. A. Cook, A. V. Barnes & C. R. Lane*. First report of honeysuckle leaf blight (*Insolibasidium deformans*) on honeysuckle (*Lonicera spp.*) in the UK
537 *Z. H. Ma, Z. D. Zhang, Y. X. Wang & X. B. Yang*. *Cylindrocladium crotalariae* causing red crown rot of soybean in China
538 *J. W. Woodhall & A. K. Lees*. First report of *Rhizoctonia solani* anastomosis group 5 (AG5) on couch grass in Britain

NUMBER 5 OCTOBER

New Honorary Members of BSPP

539 *Professor William E. Fry*
540 *Dr Robert J. W. Byrde*

Letter to the Editor

541 *J. Avelino, L. Willocquet & S. Savary*. Effects of crop management patterns on coffee rust epidemics

Review Article

548 *R. Noble & S. J. Roberts*. Eradication of plant pathogens and nematodes during composting: a review

Original Articles

569 *N. L. Robertson*. Biology of a new virus isolated from *Lupinus nootkatensis* plants in Alaska
577 *J. Colvin, C. A. Omongo, M. N. Maruthi, G. W. Otim-Nape & J. M. Thresh*. Dual begomovirus infections and high *Bemisia tabaci* populations: two factors driving the spread of a cassava mosaic disease pandemic
585 *V. Zinsou, K. Wydra, B. Ahohuendo & B. Hau*. Effect of soil amendments, intercropping and planting time in combination on the severity of cassava bacterial blight and yield in two ecozones of West Africa
596 *A. M. Hernandez-Anguiano, T. V. Suslow, L. Leloup & C. I. Kado*. Biosurfactants produced by *Pseudomonas fluorescens* and soft-rotting of harvested florets of broccoli and cauliflower
602 *H. Salm & K. Geider*. Real-time PCR for detection and quantification of *Erwinia amylovora*, the causal agent of fireblight
611 *E. E. Jones, A. Mead & J. M. Whipps*. Effect of inoculum type and timing of application of *Coniothyrium minitans* on *Sclerotinia sclerotiorum*: control of sclerotinia disease in glasshouse lettuce
621 *E. E. Jones, J. P. Clarkson, A. Mead & J. M. Whipps*. Effect of inoculum type and timing of application of *Coniothyrium minitans* on *Sclerotinia sclerotiorum*: influence on apothecial production
629 *A. Alves, I. Henriques, S. Fragoeiro, C. Santos, A. J. L. Phillips & A. Correia*. Applicability of rep-PCR genomic fingerprinting to molecular discrimination of members of the genera *Phaeoacremonium* and *Phaeomoniella*
635 *K. I. Ansari, N. Palacios, C. Araya, T. Langin, D. Egan & F. M. Doohan*. Pathogenic and genetic variability among *Colletotrichum lindemuthianum* isolates of different geographic origins
643 *P. Jennings, M. E. Coates, K. Walsh, J. A. Turner & P. Nicholson*. Determination of deoxynivalenol- and nivalenol-producing chemotypes of *Fusarium graminearum* isolated from wheat crops in England and Wales
653 *R. L. Mann, P. S. Kettlewell & P. Jenkinson*. Effect of foliar-applied potassium chloride on septoria leaf blotch of winter wheat
660 *K. C. Radewald, D. M. Ferrin & M. E. Stanghellini*. Sanitation practices that inhibit reproduction of *Monosporascus cannonballus* in melon roots left in the field after crop termination
669 *M. Babadoost, W. Chen, A. D. Bratsch & C. E. Eastman*. *Verticillium longisporum* and *Fusarium solani*: two new species in the complex of internal discoloration of horseradish roots
677 Book reviews

NUMBER 6 DECEMBER

British Society for Plant Pathology Presidential Address 2003

679 *J. A. Lucas*. Survival, surfaces and susceptibility – the sensory biology of pathogens

Review Article

692 *D. E. L. Cooke & A. K. Lees*. Markers, old and new, for examining *Phytophthora infestans* diversity

Letter to the Editor

705 *D. J. Lovell, S. J. Powers, S. J. Welham & S. R. Parker*. A perspective on the measurement of time in plant disease epidemiology

Original Articles

713 *S. J. Welham, J. A. Turner, P. Gladders, B. D. L. Fitt, N. Evans & A. Baierl*. Predicting light leaf spot (*Pyrenopeziza brassicae*) risk on winter oilseed rape (*Brassica napus*) in England and Wales, using survey, weather and crop information

725 *S. Neumann, N. D. Paveley, F. D. Beed & R. Sylvester-Bradley.* Nitrogen per unit leaf area affects the upper asymptote of *Puccinia striiformis* f.sp. *tritici* epidemics in winter wheat

733 *B. S. Rodgers-Gray & M. W. Shaw.* Effects of straw and silicon soil amendments on some foliar and stem-base diseases in pot-grown winter wheat

741 *M. McNeil, A. M. I. Roberts, V. Cockerell & V. Mulholland.* Real-time PCR assay for quantification of *Tilletia caries* contamination of UK wheat seed

751 *W. H. Elmer.* Combining nonpathogenic strains of *Fusarium oxysporum* with sodium chloride to suppress fusarium crown rot of asparagus in replanted fields

759 *W. Chen, C. J. Coyne, T. L. Peever & F. J. Muehlbauer.* Characterization of chickpea differentials for pathogenicity assay of ascochyta blight and identification of chickpea accessions resistant to *Didymella rabiei*

770 *M. H. Pei, C. Ruiz, C. Bayon & T. Hunter.* Rust resistance in *Salix* to *Melampsora larici-epitea*

780 *C. M. Smith & M. M. Campbell.* *Populus* genotypes differ in infection by, and systemic spread of, *Poplar mosaic virus*

788 *M. F. B. Dale, D. J. Robinson & D. Todd.* Effects of systemic infections with *Tobacco rattle virus* on agronomic and quality traits of a range of potato cultivars

New Disease Reports

794 *M. Hussain, S. Mansoor, S. Iram, Y. Zafar & R. W. Briddon.* First report of *Tomato leaf curl New Delhi virus* affecting chilli pepper in Pakistan

795 *P. Margaria, M. Ciuffo & M. Turina.* Resistance breaking strain of *Tomato spotted wilt virus* (*Tospovirus; Bunyaviridae*) on resistant pepper cultivars in Almería, Spain

796 *Z. F. Fan, W. J. Wang, X. Jiang, X. M. Liang, F. R. Wang & H. F. Li.* Natural infection of maize by *Pennisetum mosaic virus* in China

797 *B. Mandal, S. Mandal, S. S. Sohrab, K. B. Pun & A. Varma.* A new yellow mosaic disease of chayote in India

798 *A. L. Skelton, B. Jarvis, R. Koenig, D. E. Lesemann & R. A. Mumford.* Isolation and identification of a novel tymovirus from *Nemesia* in the UK

799 *T. Jiang & X. P. Zhou.* First report of *Malvastrum yellow vein virus* infecting *Ageratum conyzoides*

800 *F. Mejía, M. Palmieri, C. Oropeza, M. Doyle, N. Harrison, E. Aguilar, M. Narváez, R. Estrada & G. Ortiz.* First report of coconut lethal yellowing disease in Guatemala

801 *M. Kamińska, H. Śliwa & A. Rudzińska-Langwald.* First report of shoot proliferation of bleeding heart (*Dicentra spectabilis*) in Poland, associated with phytoplasma infection

802 *W. Tushemereirwe, A. Kangire, F. Ssekiwoko, L. C. Offord, J. Crozier, E. Boa, M. Rutherford & J. J. Smith.* First report of *Xanthomonas campestris* pv. *musacearum* on banana in Uganda

803 *H. Saygili, Y. Aysan, F. Sahin, N. Ustun & M. Mirik.* Occurrence of pith necrosis caused by *Pseudomonas fluorescens* on tomato plants in Turkey

804 *C. M. Brasier, S. Denman, J. Rose, S. A. Kirk, K. J. D. Hughes, R. L. Griffin, C. R. Lane, A. J. Inman & J. F. Webber.* First report of ramorum bleeding canker on *Quercus falcata*, caused by *Phytophthora ramorum*

805 *B. Henricot, I. Waghorn, G. Denton & A. M. Pérez Sierra.* First report of fruit rot caused by *Phytophthora syringae* on *Pyracantha* in the UK

806 *E. Moralejo, M. Puig & W. A. Man in't Veld.* First report of *Phytophthora tentaculata* on *Verbena* sp. in Spain

807 *R. T. A. Cook, B. Henricot & L. Kiss.* First record of *Erysiphe elevata* on *Catalpa bignonioides* in the UK

808 *J. R. Liberato & R. W. Barreto.* Anamorphic stage of *Erysiphe australiana* causing powdery mildew on *Lagerstroemia indica* in Brazil

809 *H. Kavak.* Epidemic outbreaks of powdery mildew caused by *Leveillula taurica* on *Capparis spinosa* in Turkey

810 *H. Kavak. Melampsora euphorbiae*, a new rust disease found on *Euphorbia rigida* in Turkey

811 *R. Nicoletti, F. Raimo & G. Miccio.* First report of *Rhizoctonia solani* on *Diplotaxis tenuifolia* in Italy

812 *M. Ghalandar, E. Clewes, D. J. Barbara, R. Zare & A. Heydari.* Verticilliumwilt (*Verticillium albo-atrum*) on *Medicago sativa* (alfalfa) in Iran

813 *B. S. Vieira & R. W. Barreto.* First record of *Cercospora richardiaecola* causing leaf spots on *Zantedeschia aethiopica* in Brazil

814 *C. Can, S. Yucel, N. Korolev & T. Katan.* First report of fusarium crown and root rot of tomato caused by *Fusarium oxysporum* f.sp. *radicis-lycopersici* in Turkey

815 *E. H. Abbas & A. S. Abdulla.* First report of false smut disease caused by *Graphiola phoenicis* on date palm trees in Qatar

816 *K. P. Akhtar, M. Y. Saleem, M. Asghar & M. A. Haq.* New report of *Alternaria alternata* causing leaf blight of tomato in Pakistan

817 *Author index*

825 *Keyword index*